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File Code: 1570(2007-02-13-0022)
Date: July 5, 2007

Keith G. Bauerle, Esq.
Edward B. Zukoski, Esq.
1400 Glenarm Pl., #300
Denver, CO 80202

Dear Mr. Bauerle and Mr. Zukoski:

Pursuant to 36 CFR Part 215, I have reviewed the appeal record with regard to your appeal of the April 4, 2007 decision of Forest Supervisor Mark Stiles San Juan National Forest concerning the Northern San Juan Project. I have also considered the written recommendation of the Appeal Reviewing Officer respecting the disposition of your appeal. The Reviewing Officer's review focused on the decision documentation developed by the Forest Supervisor and the issues raised in your appeal.

Decision

The Reviewing Officer, based on review of the record, found no evidence of the decision violating law, regulation or policy, and recommended the decision be affirmed in whole with the following instructions:

I am instructing the Forest Supervisor to ensure the:

1. Proposed mitigation in 3.9.6.4.4 Hairy Woodpecker and Bluebird (FEIS, Volume I, Page 3-290) is made mandatory.
2. Language in the first two proposed measures is changed from ".... from loss to construction activities .... " to " ... from losses resulting from implementation of the ROD .... ".
3. Implement mitigation measures that increase availability of snag cavity-nesting habitat by 10% in Management Area 6B over 5 years, and include the results in the annual monitoring report.

After my review of the appeal record, I concur with the Appeal Reviewing Officer's recommendation and I adopt and incorporate it into my decision. It is enclosed and all requests for relief are denied.

My decision constitutes the final administrative determination of the Department of Agriculture.

Sincerely,

/s/ Richard C. Stem
RICHARD C. STEM
Deputy Regional Forester,
Resources

File Code: 1570(2006-02-13-0022) **Date:** July 5, 2007
Route To:

Subject: Recommendation Memorandum for Northern San Juan Basin Coal Bed Methane

To: Appeal Deciding Officer

I have reviewed the appeal record regarding the April 4, 2007, appeal of the decision of Forest Supervisor Mark Stiles concerning the Northern San Juan Basin Coal Bed Methane Project (NSJBCBMP). My review of the appeal as submitted by Keith G. Bauerle, and Edward B. Zukoski, et al eligible Appellants focused on the decision documentation developed by the Forest Supervisor in reaching his decision in relation to issues raised in the appeal. Pursuant to 36 CFR §215.13(f)(2), this will constitute my written recommendation concerning the disposition of the appeal, and I am forwarding the appeal record to you.

BACKGROUND

The Northern San Juan Basin Coal Bed Methane Record of Decision was signed on April 4, 2007. The objective for the project was to assess the environmental impacts of the development of coal bed methane well heads and ancillary facilities in the Northern San Juan Basin.

RELIEF REQUESTED

1. The Regional Forester must withdraw the Record of Decision ("ROD") approving the Northern San Juan Basin Coal Bed Methane Project and all activities approved under Decision Points 1, 4, 6 and 8;

2. If the Forest Service intends to proceed with the Northern San Juan Basin Coal Bed Methane Project, it must prepare NEPA documentation (including opportunities for public involvement and appeal) that complies fully with NEPA, NFMA, the CAA, the Wilderness Act, and the APA, and that addresses all of the issues raised in this appeal. Any subsequent ROD must demonstrate compliance with the Forest Plan and remedy the deficiencies raised in the Statement of Reasons;

3. Any review of this appeal must include an Issue-by-issue "statement of reasons" responding to each issue raised in the appeal.

4. Direct the Forest Supervisor to refrain from committing any further agency resources to implementing the Northern San Juan basin Coal Bed Methane Project.

ISSUES AND DISCUSSION

I. H.D. Mountains Roadless Area.

A. The decisions violate the National Forest Management Act, its Implementing Regulations, and the San Juan National Forest Plan.

Discussion: See items 1-5 below

1. NFMA requires that the Forest Service Ensure that Project Level Decisions Comply with the Forest Plan.

Discussion: The Record of Decision (ROD p. 46, item 2) documents compliance with the Forest Plan and references page 16 with respect to the Forest Plan amendment that provides for consistency of the ROD and the Forest Plan.

I recommend that the Forest Supervisor be affirmed on this issue.

2. The Proposed Action violates the plan requirement that 5% of forested areas must be in old growth.

Discussion: The old growth guideline describes desirable, though no mandatory, conditions that help guide the overall management of projects and vegetation. To achieve old growth goals, the forest has implemented Forest-wide strategies to promote old growth characteristics in pine forests and generally to avoid old growth harvest. (ROD-16 to ROD-17) Forest-wide there are a total of 260,941 acres of ponderosa pine, of which 15,245 acres are old growth. This means 5.8 percent of total ponderosa pine acreage is in old growth (FEIS 3-231). Currently there is between 2.3 and 3.1 percent of the ponderosa pine forest that is old growth in the HD Mountains project area. Of the 746 acres of old growth, approximately 13 acres could be removed during implementation of this decision, and six of fifteen old growth stands could be impacted (ROD-16 and FEIS Section 3.8.3.6). Therefore, while the project area is not at 5 percent for old growth, forest-wide the percent of old growth is above 5 percent.

(In response to the footnote on SJCA's appeal pg 7, FSH 1909.12 11.13 directs the use of the word "should" in describing guidelines to avoid confusion.)

I recommend that the Forest Supervisor be affirmed on this issue.

3. The decisions fail to ensure consistency with the Plan's Standards for the protection of streams.

Discussion: As cited by Appellants, the FEIS states; "The watershed analysis suggests that several project alternatives may not conform to Direction and standards for the SJNF LRMP….Each of these issue areas would be addressed through field siting, facility engineering,

and utilization of BMPs and standards and guidelines applicable to watershed protection."(FEIS 3-179).

However, on pages 3-133 and 134, the FEIS describes the conceptual nature of portions of the project; "Within each alternative, there are two levels of detail. There are 56 access roads and well locations where roads and well pads have been staked and the exact location of the facilities are known. The non-staked locations have not been field verified, and actual final siting will not occur until the companies submit notices of staking (NOSs) or APDs for the locations. These non-staked locations present conceptual approximations for the best facility location based upon field knowledge, topographic map aids, and the application of well spacing rules. During the field on-sites, well locations will be adjusted to best avoid environmental hazards, and exception locations may be utilized that move wells out of the spacing windows for such purpose. Environmental consequences have been based on mapped locations, but the environmental consequences described should be conditioned by the assumption that some areas of concern can be avoided through careful road and well siting and utilization of engineering designs that reduce hazardous impacts."

Further, the FEIS (p. 1-3, 4) states; "The companies have not submitted APDs for all their proposed well sites within the Project Area to date." "When submitted, the National Environmental Policy Act (NEPA) review of each of these APDs will be tiered to this EIS. The review will be limited in scope in each case to the site-specific aspects of the environmental analysis that are not covered by this EIS." "The surface use requirements in Appendix A of the EIS will be modified as needed to address additional environmental concerns that may result from the field survey and final well and access road siting."

This issue is further clarified in the ROD (p. 46); "The…SUPOs and APDs authorized subsequent to but consistent with this ROD, will conform to the Forest Service/BLM…approved LRMP/RMP direction pertaining to oil and gas exploration and development activities. One aspect of the project varies from the Forest Service LRMP that requires LRMP amendment as presented under Decision Point 1 above." (See I.B.2. below)

In summary, the lack of specificity for activities not yet specified in NOSs or APDs led to necessarily general assertions regarding environmental consequences. This EIS and ROD, as specified above, however, are not the final authorizing decision for these locations, which will be subject to appropriate analysis, notice, comment, and review.

I recommend that the Forest Supervisor be affirmed on this issue.

4. **The decisions fail to ensure consistency with the Plan's Standards for Wildlife Habitat.**

   The decisions fail to ensure consistency with Forest Plan's standards for Habitat Capability. The Forest Service has failed to conduct a consistency analysis that analyzes habitat effectiveness by examining habitat effectiveness within each management prescription area within the larger project area; and has provided no

evidence that the development in these management areas will conform to the Forest Plan.

Discussion: LRMP direction for habitat capability is specified through forest-wide and management area (MA) standards and guidelines. "The forest direction details overall management requirements that are to be achieved or maintained across the SJNF over time. Management area direction presents more specific direction for areas of land on the SJNF called management areas (FEIS, Vol. 1, Page 3-294). Projects implementing the Forest Plan should be in conformance with Plan direction for habitat capability. The standards against which the Project are to be tested are the management area prescriptions.

The emphasis in MA 4B is on the habitat needs of management indicator species (MIS), where the goal "is to optimize habitat capability, and thus numbers of the species" (FEIS, Chapter III, Page II-140). Habitat capability for MIS are to be maintained at a minimum of 80 percent of potential. For commonly taken game species, at least 90 percent of habitat needed to support the State's population goals is to be maintained. Although the FEIS analysis does not explicitly analyze habitat capability relative to State population objectives, it does state that elk numbers are slightly above objective and stable across the Forest (FEIS, Vol. III, Page J-90), and that existing winter range in the project area is near optimum conditions. From this it is reasonable to conclude that the required habitat capability standard is likely being met. Similar information for mule deer on the status of area population objectives is not provided, but the FEIS states that the existing range condition ratio is near optimum. Because 4B management areas within the Project area fall within the HD Mountains Inventoried Roadless Area, they have been little altered from natural conditions by management (FEIS, Vol. 1, Page 3-295). These areas remain unroaded, do not have history of logging, and are lightly grazed. Based on these largely natural and lightly impacted conditions, the Forest estimates that habitat capability for MIS is likely above the 80 percent capability standard (FEIS, Vol 1, p 3-296). Under the preferred alternative (Alternative 7), 4B management areas would remain unroaded and undeveloped (FEIS, Vol 1., 3-294). Given these conditions, the Forest has reasonably assumed that habitat capability would not be substantively degraded and would, therefore, remain within standard.

Under the Preferred Alternative, development would occur in management areas 5B and 6B. In MA 5B, management activities are to be designed to favor indicator species endemic to particular habitats, with emphasis placed on maintaining big game winter habitat effectiveness. For those species, habitat capability is to be maintained at a minimum of 80 percent, and 90 percent habitat effectiveness is to be maintained during the winter period. MIS habitat capability in 6B areas is to be maintained at or above 60 percent of potential.

Appellants are incorrect that the FEIS failed to analyze habitat capability within the 5B management area. The FEIS found that the 80% habitat capability requirement would be met under all alternatives based upon mandatory mitigation to restrict motorized travel: "The control of vehicular access during the winter months is prescribed to specifically maintain winter habitat capability for deer, elk, and other wildlife species in general." FEIS, p. 3-297; J-202.

Analyses conclude that in at least portions of the Project area Plan standards for cavity-nesting birds, in particular hairy woodpeckers and bluebirds may not be met (FEIS, Vol. 1, 3-296).

Actual data do not exist, but biologists believe effective cavity-nesting snag densities are below Plan standards. Analyses further show that the Project could incrementally contribute to moving conditions further away from the Plan standard (FEIS, Vol. III, Page J-126, J-166).

Conclusion: I find that the Forest's reliance on restricting motorized travel to ensure compliance with the MA 5B habitat capability analysis was reasonable because motorized travel and the associated disturbance it introduces have the greatest adverse effects on habitat capability. I also note that the Forest did not expressly address whether the 90% habitat effectiveness requirement in MA 5B would be met. However, I find that this was an insignificant oversight because habitat effectiveness would also be protected by restricting motorized access.

Moreover, the FEIS was clear that a plan amendment might be required to make the project consistent with the 5B MA for "transportation system management in winter range." FEIS, p. 1-2. Thirty days after publication of the FEIS, an amendment was made in the ROD and the rationale for the amendment included the fact that restrictions in the 5B MA were inconsistent with the LRMP decision to lease with standard stipulations. ROD, p. 16. It was clearly the purpose and intent of the amendment to make the 5B MA provisions for "transportation system management" consistent with the project by exempting the project from any contrary provisions. It would render the amendment useless to construe it to release the project from the restrictions about building new roads but not from the restrictions about using those roads once built. While the amendment did not expressly address the 80% or 90% habitat capability or effectiveness restrictions, those restrictions were necessarily removed by the amendment to the extent that the project did not already meet those standards.

Because of the strong population status for hairy woodpeckers and bluebirds in the project area, the implementation of effective mitigation could eliminate concern over possible disparities between standards for cavity-nesting birds and actual conditions in 6B Management Areas. With direction to implement the following adjustments to mitigation measures for these species, I conclude that the project will be consistent with Plan direction for 6B Management Areas:

- Make all mitigation measures identified in the FEIS at 3.9.6.4.4 Hairy Woodpecker and Bluebird (Volume 1, Page 3-290) mandatory.
- Change language in the first two of these mitigation measures from "… loss to construction activities…" to " loss resulting from implementation of the ROD…"
- Implement mitigation measures that increase the availability of effective cavity-nesting snag habitat within the project area by 10% in Management Area 6B over 5 years and include the results in the annual monitoring report

Based on the above recommended direction to adjust cavity-nester mitigation, I recommend that the Forest Supervisor be affirmed on this issue.

5. The Decisions are Inconsistent with the Plan's Standards and the NFMA and its Regulations' Requirements for the Monitoring of MIS

A. The Forest Service violated NFMA and its 1982 Planning Regulations by not monitoring MIS population trends.

Appellants contend that the Forest Service violated the 1982 Planning Regulations at 36 C.F.R. §219.19(a)(6) and §219.26 by failing to carry out the requisite population monitoring and collecting actual population data for Forest MIS prior to approving the Project.

Discussion: The former 1982 Planning Regulations at 36 C.F.R. §219.19(a)(6) required that population trends of the management indicator species (MIS) be monitored and the relationship of those trends to habitat changes be determined. *Id.* §219.26 state that "inventories shall include quantitative data making possible the evaluation of diversity in terms of its prior and present condition".

However, the 1982 regulations were superceded when new planning regulations were issued in November 2000. 65 Fed. Reg. 67,514 (Nov. 9, 2000), codified at 36 C.F.R. Part 219 (2001). With respect to site-specific project decisions implementing pre-November 9, 2000 forest plans, transition provisions of the 2000 planning regulations provided that "[N]either the remainder of the 2000 planning regulations nor any of the 1982 regulations were binding on site-specific decisions during this [transition] period". Ecology Ctr., Inc. v. U.S. Forest Serv., 451 F.3d 1183, 1191 (10th Cir. 2006). The transition period was originally set as November 9, 2000 to November 9, 2003, but extended for site-specific projects by an Interim Final Rule issued on September 10, 2003. 68 Fed. Reg. 53,294, 53294-96(2003) to January 5, 2005, with implementation of the new final rule

Since then, a new planning rule was published and implemented on January 5, 2005 (Id. at 53295: see also 70 Fed. Reg. 1022, 1022-23 (Jan. 5, 2005)), but was enjoined from implementation in March, 2007. With the 2005 planning regulations enjoined, the Forest Service has reverted to the previous planning regulations pending issuance of a new rule, and the transition period extended indefinitely pending completion of a new rule.

Under the transition provisions of the 2000 regulations, site-specific project decisions made by agency officials during the transition period are to "consider the best available science in implementing and, if appropriate, amending the current plan" Id. §219.35(a), (d). Because the San Juan Forest Plan was revised in 1993, and this project decision was made during the transition period, the decision to approve the project was governed by the "best available science" standard of the 2000 regulations, not specific monitoring requirements of the 1982 regulations. Consequently, the standard that may be applied to implementation of the Forest Plan [pre-November 9, 2000] are "best available science" and the requirements of the Plan itself (16 U.S.C. § 1604(i)), to the extent that those requirements do not conflict with "best available science.

Conclusion: The project decision is not subject to the monitoring provisions of the 1982 planning regulations as contended by Appellants, but rather the "best available science" standard of the 2000 planning regulations and requirements of the Forest Plan. The 1982 planning regulations would apply only if the Plan expressly referenced them in adopting requirements to monitor MIS designated by the Plan, which it does not. Even if the Plan and the Project were subject to the 1982 planning regulations, the requirements in the 1982 planning regulations

would have been substantively met because the Forest has continued to monitor MIS and to collect quantitative population data (see discussion in #3 below).

Appellants challenge the Forest's position that it is not required to conduct population monitoring. Appellants further assert that they believe the Forest's position is based on two erroneous conclusions: (a) The Forest Plan does not require population monitoring, and (b) that 36 C.F.R. §219.14(f) of the 2005 Planning Regulations alleviates forests of the obligation to conduct population monitoring. Appellants contend that with regard to 1(a), "The plain language of the Forest Plan reveals that to be false; and that with regard to 1(b) that the Forest must first amend its Plan to utilize new regulations, and that in any case, the 2005 Planning Regulations have been enjoined from implementation.

Discussion: First, with regard to contention 1(b) above, the Forest Service does not contend that the 2005 Planning Regulations (including §219.14(f)) remain in effect after being enjoined by the Court.

With regard to contention 1(a) above, the FEIS,Volume III, Appendix J, Page J-1 states: "The Revised San Juan Forest Plan as amended in 1993, establishes monitoring and evaluation requirements that do not require population monitoring for MIS, but instead states the intent to 'determine habitat trends and the relationship to habitat change'".

Appellants contend that the 1982 regulations required the Forest Service to collect actual quantitative population trend data and, therefore, the 1983 Forest plan must also have intended to adopt that requirement. Appellants cite a 2004 10th Circuit Court interpretation of the 1982 rule but that interpretation had not been rendered in 1983 when the plan was issued, or in 1992 when the plan was amended. In fact, the Forest Service had been arguing prior to the 10th Circuit's ruling that the 1982 regulation did not apply at the project level and did not require collection of population data. See, UEC v. Bosworth, 439 f.3d 1184, 1191 (10th Cir. 2006) (describing Forest Service position), and 64 Fed. Reg. 54074, 54080 (October 5, 1999) (saying that the 1982 rule "is limited to forest planning at the programmatic [rather than project level). Since the San Juan plan does not expressly adopt the 1982 rule, there was no implied adoption of that rule for application to projects under the plan.

Conclusion: Table IV-1, Page IV-4 of the San Juan Forest Plan commits the Forest to evaluating population and habitat trends of Forest MIS across the scale of the Forest. However, the plan allows the Forest Service to make its evaluation of population trend using a variety of data sources and does not preclude doing so without any population data. To evaluate population and habitat trend, the Forest may rely on data sets for population data from a variety of sources, including the Colorado Division of Wildlife, bird monitoring programs such as Monitoring Colorado Birds, etc. The Forest is not obligated to originate any population data.

Appellants assert that the Forest Service violated NFMA's conistency provision (16 U.S.C. §1604(i)) to ensure that site-specific projects are consistent with the Forest Plan "by failing to carry out the requisite population monitoring before approving the Project".

Discussion: Based on the above discussions, the Project must conform to the requirements of the Forest Plan. Although the Forest's position is that it is not required to monitor MIS population trends based on its Forest Plan, in fact it has done so and continues to do so. The Forest had "…recently completed forest-wide MIS assessments (Exhibit J-30) for all terrestrial species evaluated in this analysis". These "living" assessments contain the best available data on species populations and population trend regionally and on the Forest (from both internal and/or external sources), and provide population/habitat correlation analyses (FEIS, Volume 3, Appendix J, Page J-19). Furthermore, as stated on Page 3-294 of the FEIS, Volume 1, the Forest "conducted inventories and monitoring for selected wildlife species in the Project area during 2002, 2003 (northern goshawk, Mexican spotted owl, hairy woodpecker, mountain bluebird, green-tailed towhee, Merriam's Turkey, southwestern willow flycatcher Abert's squirrel) (Exhibit J-3), 2004 (Mexican spotted owl, mountain bluebird, hairy woodpecker, green-tailed towhee) (J-4), 2005 (northern goshawk, mountain bluebird, hairy woodpecker, green-tailed towhee, Merriam's turkey, Abert's squirrel) (Exhibit J-5), and 2006 (as for 2005) (Exhibit J-6) to establish pre-project baseline conditions, while population data were collected for other MIS by external sources, e.g., the Colorado Division of Wildlife, Monitoring Colorado's Birds, Breeding Bird Survey, etc. Discussions of population data for MIS analyzed are found in FEIS, Volume 3, Appendix J). Combined data sets were used to establish forest population trends of MIS and to project future trends based on changes in habitat (FEIS, Volume III, Appendix J). Quantitative data sets for many MIS, including a number of bird species, deer, and elk, are quite good. The Forest also conducted project-level surveys of species to be evaluated in order to establish occurrence, distribution, and habitat to help tier analyses to forest-level assessments of MIS status and trend, and to assess conformance with Forest Plan objectives (FEIS, Volume III, Appendix J). The Forest did this in spite of its interpretation that the plan does not require monitoring or surveying within a proposed project area (FEIS, Vol. III, Appendix J, J-1).

As discussed above, the Forest has continued to monitor MIS populations and habitat. Further, all MIS (24) found in the project area which could be affected by the project were analyzed for the effects of each alternative on each MIS (FEIS, Volume 1, Page 3-280, 281). Findings were tiered to the forest-wide assessments to place the project in context of forest-wide MIS status, trend, and objectives; and to analyze how the effects of project alternatives would affect those trends and contribute to achieving Forest Plan MIS objectives (FEIS, Volume 3, Appendix J).

Conclusion: The Forest Service is obligated, to the extent practicable, to acquire data that serves the purposes and objectives for which MIS are selected. The source of the data is immaterial so long as it meets the Forest Service's analytical needs. Documented evidence demonstrates that the Forest has monitored and continues to monitor MIS populations on the Forest, using various sources of data. Further, those data collected for many MIS in the project area and which may be affected by the project are often quantitative in nature, conforming to the 10th Circuit's understanding of the 1982 planning regulations, should the Forest and the project be subjected to those requirements. Data have been collected at the appropriate scale to assist in analyzing for population trend (that cannot be done for most species at the project scale), and have been supplemented with appropriate data from the project area to help place the project in context of forest-wide populations and objectives for MIS. *Consequently, with regard to MIS population monitoring, I find that the Project is consistent with requirements of the Forest Plan*.

Appellants contend that to the extent the Forest Plan is subject to provisions of the 2000 Planning Regulations and the 2004 Interpretive Rule, "The Forest Service's decision in this case should be reversed because there is no evidence the Forest Service utilized the best available science standard in approving the project.

Discussion: Although the ROD does not specifically mention best available science in the basis of the project decision, supporting scientific analyses constitute a record that evidences the application of best available science in both forest and project level MIS analyses.

The application of the best available science standard begins with the construction of forest-wide assessments of Forest MIS species and the Forest ecosystems on which they depend (San Juan National Forest MIS Assessment: Terrestrial Wildlife; Exhibit J-30). These assessments gather all relevant information to understand the subject species and the ecosystems on which they depend, including their current status and trend. They are developed using the best available and applicable published and unpublished information, and identify the best inventory and survey protocols, where they exist. For each MIS, the Forest has identified existing sources for population data, including those that best meet the needs of the Forest. For instance, Monitoring Colorado Birds uses the best known techniques for routinely monitoring neotropical migrant bird species and has a network of permanent monitoring transects that are conducted in a manner that provide population data on the Forest that meets the statistical assumptions of the model (Exhibit J-30). Similarly, the Colorado Division of Wildlife conducts population trend surveys of deer and elk throughout the state, with data collected at the levels of analysis units, a scale that provides effective population data at the Forest level. Each assessment is underpinned by the most relevant scientific studies and data, including that which originates in the region and on or near the Forest.

As discussed under contention #3 above, the Forest also has conducted inventory and monitoring of a variety of MIS in the project area, using the most applicable scientific protocols, from 2002-2006 (see annual MIS monitoring reports; Exhibits J-3 through J-10).

The most relevant science and data collected regionally, at the forest scale, and at the project level were all used to perform analyses for each MIS that may be affected by the project (FEIS, Volume III, Appendix J, Pages 1-217). Some 165 scientific sources of information and data are cited within these analyses alone. Chapter 8 of the FEIS lists 270 references cited in the FEIS, with some overlap with the MIS references cited.

Conclusion: Contrary to Appellants assertion that "… there is *no* evidence the Forest Service utilized the best available science standard in approving the project", the record contains substantial evidence that the Forest sought and utilized the best available science and data in conducting analyses that supported the project decision. Many factors are weighed in arriving at resource management decisions, and certainly the science behind resource management implications is prominent among them. But the reason the standard of the 2000 planning regulation is to "consider" best available science is that it is but a part of the decision equation. Appellants may identify individual circumstances where there may be doubt about or difference of opinion on the science used or the desirability of an outcome (the goshawk example provided by Appellants), but there is no doubt that the record demonstrates substantial effort to identify

and incorporate current scientific knowledge and data gathered from the Forest and project area to support scientific analyses related to MIS and other wildlife species at issue. Regarding the goshawk example cited by Appellants, the Record demonstrates Appellants assertion that important sources were not used and cited by the Forest is incorrect. See response to 5.C.1.c. 3, below.

I recommend that the Forest Supervisor be affirmed with regard to this issue.

B. The Forest Service Failed to Legally Amend the Forest Plan.

1. The Forest Service May Amend the Forest Plan Where it Abides by Law, Regulations and Policy, and Where Its Decision Is Supported by the Record.

Discussion: See I.B.2. below.

2. The Forest Service Adopted the Forest Plan Amendment Regarding Local Road Construction in 5B Project Areas in Violation of NFMA and NEPA, and the Amendment Is Invalid.

Appellants assert: "In adopting this amendment to the Forest Plan, the Forest Service failed to comply with its NFMA and NEPA obligations by: (1) failing to provide public notice and comment in connection with the amendment; and (2) failing to adequately analyze the amendment's significance." (p.26)

Background: The ROD (p. 16) changes "Allow new roads in the management area (5B) only if needed to meet priority goals outside the management area…."
to:

> "Allow new roads in the management area (5B) only if needed to meet priority goals *within or* (emphasis added) outside the management area…."

Under the 1982 planning rules, which have been superceded, there were guidelines to determine whether an amendment would result in a significant change in the Plan under NFMA. 16 U.S.C. 1604 (f) (4). Former 36 CFR 219.10(3)(f) *Amendment.* The Forest Supervisor may amend the forest plan. Based on an analysis of the objectives, guidelines, and other contents of the forest plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change in the plan. If the change resulting from the proposed amendment is determined not to be significant for the purposes of the planning process, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures.

FSM 1926.5 - Amendment. The need to amend a forest plan may arise from several sources. While these regulations and their associated manual and handbook provisions are no longer in effect, I find that they provide a reasonable analytical framework which I use here without conceding that their framework is applicable.

2. Findings that existing or proposed permits, contracts, cooperative agreements, and other instruments authorizing occupancy and use are not consistent with the forest plan but should be approved (former 36 CFR 219.10(e));

FSH 1909.12-92-1, 5.32 – Process to amend the Forest Plan. The following actions must be taken when a proposal is not consistent with the forest plan and the proposal is to be considered further for implementation.

1. Prepare a proposed amendment to the forest plan.
2. Make a determination of the significance of the change to the forest plan….
3. The following factors are to be used when determining whether a proposed change to a forest plan is significant or not significant…
    a. Timing. Identify when the change is to take place. Determine whether the change is necessary during or after the plan period (the first decade)….In most cases, the later the change, the less likely it is to be significant for the current forest plan.
    b. Location and Size. Determine the location and size of the area involved in the change. In most cases, the smaller the area affected, the less likely the change is to be a significant change in the forest plan.
    c. Goals, Objectives, and Outputs. Determine whether the change alters long-term relationships between levels of goods and services projected by the forest plan. Consider whether an increase in one type of output would trigger an increase or decrease in another. Determine whether there is a demand for goods or services not discussed in the forest plan. In most cases, changes in outputs are not likely to be a significant change in the forest plan unless the change would forego the opportunity to achieve an output in later years.
    d. Management Prescription. Determine whether the change in a management prescription is only for a specific situation or whether it would apply to future decisions throughout the planning area. Determine whether or not the change alters the desired future condition of the land and resources or the anticipated goods and services to be produced.

Discussion - notice and comment: While the Appellants point out that no specific mention of a potential FLRMP amendment occurs until the FEIS, they also identify that the DEIS (3-360) discloses that the proposed "…roads are not consistent with general direction and guidelines for Management Areas 5B…." This assertion demonstrated inconsistency with "…the objectives, guidelines, and other contents of the forest plan…." In accordance with former 36 CFR 219.10(3)(f). This also provided opportunity to comment on what the Appellants correctly identify on page 6 were the Forest's options: "(1) amend the plan; (2) modify the action to comply with the plan; or (3) disapprove the action that is inconsistent with the plan." In their comments to DEIS (11/29/2004), SJCA et al. specifically identify proposed road construction in Management Area 5b as an instance of non-compliance with the FLRMP, and summarize "…the Forest Service cannot approve the actions contemplated by the preferred alternative." (p. 16)

The FEIS, 1.4 Scope of Agency Decisions (xiv), provides notice: "This environmental impact statement (EIS) and its supporting project record are the basis for the Record of Decision (ROD) that will document the following BLM and FS decisions:

> "(6) Whether to amend the San Juan National Forest Land and Resource Management Plan to achieve Plan conformance for old growth and transportation system management in winter range, depending on the alternative selected."

By identifying a New Preferred Alternative (Alternative 7) in the FEIS (cover letter), as well as the Proposed Action (Alternative 1) that include road construction in management area 5B, in context of the above referenced forthcoming decision, the proposal logically includes a forest plan amendment. On page 2 of the same letter, appropriate public notification in accordance with former 36 CFR 219.10(3)(f) is summarized: "The FEIS will be available for at least 30 days after the date the Environmental Protection Agency publishes its Notice of Availability in the *Federal Register* before any final project determinations will be made in a Record of Decision (ROD). The ROD, when issued, will document BLM and FS project decisions described in FEIS Section 1.4 (above). As stated on p. 8 of the ROD: "The BLM and Forest Service received more than 40 comment letters or e-mails subsequent to the release of the FEIS."

The San Juan Citizens Alliance (SJCA) commented specifically on the DEIS regarding Forest Plan compliance with respect to road building in 5B areas. On page 6 of their appeal the SJCA clearly demonstrates an understanding of the process, and as documented in the ROD (p.12), the SJCA provided comments to the ROD. The FEIS, ROD, and project record constitute "…satisfactory completion of NEPA procedures: as defined by former 36CFR 219.10(3)(f).

Discussion; amendment's significance: A comparison of factors determining whether an amendment is significant or not significant FSH 1909.12-92-1, 5.32, 3.a.-d. (as outlined above) with the FEIS reveals:

a. Timing. Identify when the change is to take place. Determine whether the change is necessary during or after the plan period (the first decade)….In most cases, the later the change, the less likely it is to be significant for the current forest plan.

The current Forest Plan is dated 1983, and was amended in 1992, the ROD amends the plan effective well beyond the first decade, April 14, 2007.

b. Location and Size. Determine the location and size of the area involved in the change. In most cases, the smaller the area affected, the less likely the change is to be a significant change in the forest plan.

The area involved in the change is approximately 6,000 acres (exhibit J-14). In comparison, the San Juan National Forest is about 1,868,000 acres (Forest Plan, p. II-1), the project area is roughly 125,000 acres (FEIS cover letter, p.1), and all 5B management areas comprise about 150,000 acres of the Forest (Forest Plan, p. III-86). Proportionally:

Area	Acres	Percent
Amendment	6,000	-
San Juan NF total	1,868,000	0.3%
Project area*	125,000	4.8%

Management area 5B total	150,000	4.0%

*Includes BLM, State, and private surface

Conversely, FSM 1926.52, titled "Changes to Forest Plan That are Significant" includes example "2. Changes that may have an important effect on the entire forest plan or affect land and resources throughout a large portion of the planning area during the planning period." As the above table shows, the size of the area within the amendment within any of the relevant planning area contexts is relatively small.

c. Goals, Objectives, and Outputs. Determine whether the change alters long-term relationships between levels of goods and services projected by the forest plan. Consider whether an increase in one type of output would trigger an increase or decrease in another. Determine whether there is a demand for goods or services not discussed in the forest plan. In most cases, changes in outputs are not likely to be a significant change in the forest plan unless the change would forego the opportunity to achieve an output in later years.

This factor has little relevance to this amendment; however, evaluation of the other three factors shows that: 1) the change is being made late in the planning period and does not pre-judge the pending plan revision; 2) the change applies to a small portion of the plan. Therefore, it is clear that long-term relations between goods and services are not affected.

d. Management Prescription. Determine whether the change in a management prescription is only for a specific situation or whether it would apply to future decisions throughout the planning area. Determine whether or not the change alters the desired future condition of the land and resources or the anticipated goods and services to be produced.

As shown above, the amendment to existing standards and guidelines applies to less than 5% of the planning area. As stated in the ROD (p.16): "This change in LRMP applies to the HD Mountains." "Whether to apply this change in management direction Forest-wide will be addressed in the LRMP revision which is currently underway.

Based on the above discussion, the Forest Plan Amendment is not significant, and I recommend that the Forest Supervisor be affirmed on this issue.

C. The Decisions Violate NEPA and its Implementing Regulations.

1. The Forest Service Failed to Analyze the Impacts to the HD Mountains' Resources and the Effectiveness of the Proposed Mitigation Measures.

a. The Forest Service failed to analyze the impacts to the HD Mountains' old growth ponderosa pines and the effectiveness of mitigation measures to reduce impacts to old growth stands and individual trees.

Discussion: Tabulation of extensive analyses was presented in the FEIS pg 3-252 Table 3-73 comparing the impacts of CBM development under each alternative. A hard look was taken at the potential impacts to old growth ponderosa pines stands within the project area, given that

APD's have yet to be submitted and precise pad placement information is not available (FEIS 3-252 to 3-253). Additional steps have been taken within the decision to avoid impacting ponderosa pine old growth stands where encountered in the project area to minimize the loss of this important resource, including placing No Surface Occupancy stipulations on four Project Area leases to avoid old growth areas (ROD-17).

I recommend that the Forest Supervisor be affirmed on this issue.

b. The Forest Service failed to analyze the impacts to the HD Mountains' streams and the effectiveness of mitigation measures.

Discussion: The issues in this appeal point are linked to the issues in appeal point 1-A-3, above. See also the discussion and recommendation under 1-A-3.

The FEIS, Vol. 1, pages 3-124 through 3-167 contains extensive analysis of the potential direct, indirect, and cumulative impacts to HD Mountains streams. The FEIS, Vol. 1, p. 3-179 -181 discusses areas where, based on these analyses, watershed compliance issues may be anticipated and further states that these issue areas "would be addressed through field siting, facility engineering, and utilization of BMPs and standards and guidelines applicable to watershed protection".

The FEIS, Vol. 1, pages 3-167 – 3-175 details extensive mitigation measures that would be applied in a site specific manner to project permits. Page 3-167 references FSH 2509.25 as the documentation for the effectiveness of the majority of the mitigation measures. Pages 3-175 through 3-176 document site specific monitoring that will be required in compliance with the SJNF Forest Plan to further determine the effectiveness of these mitigation measures at specific project locations.

Specific sub-issues detailed under this appeal point are addressed below:

a. "…..the analysis of sedimentation in the DEIS does not include contribution from landslides and slope failures……"

The FEIS, Vol. 1, pages 3-80 and 3-81 provides specific information on how the effects of the project on landslides and slope stability will be addressed. Additional discussion of the approach used for sedimentation analysis is found on pp. 3-193 to 3-196 and 3-200 to 3-215.

b. "….the FEIS failed to analyze the use of the Spring Creek Road as a transportation and pipeline corridor…."

Impacts of current use and potential changes in use of the Spring Creek Road are included in the Surface Water (3.6), Recreation (3.11), and Transportation (3.12) sections of the FEIS (FEIS, Volume 1 pp. 3-108, 3-147, 3-148, 3-176, 3-368, 3-377, 3-385, 3-401, 3-405, 3-408)

c. "…. the analysis is further flawed because it is not detailed enough to determine the sources and effects of the sediment within the watersheds…."

The initial Discussion section, above, addresses this concern.

d. "…. the agency's analysis of mitigation [for steep slopes] fails to meet NEPA's requirements….."

See initial Discussion as well as part a., above.

e. "… as part of Decision Points 6 and 8, the Forest Service has authorized "one time exception[s]" to lease stipulations on leases COC 64933 and 34…. that were imposed on the leases to avoid landslide areas, steep slopes, riparian areas, and floodplains….. There is no way the public… can evaluate …the impacts of these exceptions without being able to review them. The agency's failure to provide these SUPO's prior to approving them in the ROD thus violated NEPA."

SUPOs are available in the San Juan Public Lands Center Office. Additionally, the ROD, p. 45, in reference to COC 64933 and COC 64934, states that …"Final approval of the SUPOs and BLM's decisions on APDs will be considered subsequent to this ROD…".

f. "…. the forest service cannot know whether the Project will comply with Forest Plan standards."

See the discussion and recommendation under 1-A-3.

I recommend that the Forest Supervisor be affirmed on this issue.

c. The Forest Service failed to analyze the impacts to the HD Mountains' wildlife and the effectiveness of mitigation measures.

Appellants allege that the Forest Service leaned heavily on direct impacts to habitat in its effects analyses, and while acknowledging other indirect effects, failed to analyze and project indirect effects, to the best of its ability.

Discussion: Review of the impacts analysis for several species (FEIS, Vol. III, Appendix J), focusing on those that will be most sensitive to indirect effects (e.g., habitat fragmentation, noise, increased activity, etc.), shows that the Forest made a strong effort to analyze and project the indirect effects of Project development and operation. In fact, for deer, elk, and bear, such effects were modeled in concert with the Colorado Division of Wildlife. Analyses went to great length to analyze, discuss, and project (to the extent reasonable) the consequences of indirect influences. In the cases of these three species, analyses show that the indirect effects are, in fact, likely to be far greater than the direct effects. For example, the analysis prepared for black bear concludes that while the direct effects of habitat loss will be minor for bear, indirect effects on the effectiveness of important fall and security habitats could be quite significant.

Conclusion: Based on review of the record, we find no basis for this element of the Appellants' contention and conclude the Forest analyzed indirect effects to a reasonable level.

I recommend the Forest Supervisor be affirmed on this issue.

Appellants allege that because many mitigation measures proposed in the FEIS are "conditional", i.e., that is discretionary and equivocal, they cannot be assumed and factored in effects analyses and conclusions on which these analyses are based.

Discussion: In his decision (ROD p 3, 18, and 22), the Forest Supervisor made mandatory "… compliance with all environmental protection measures, design criteria (e.g. best management practices) and monitoring measures presented in the FEIS…"

Conclusion: While many wildlife mitigation measures were written with equivocal or conditional language in the FEIS, the ROD has made compliance with those measures mandatory. Appellants complaint about the "conditional" nature of mitigation has been rendered moot.

Appellants challenge the scientific credibility of certain protective measures, in particular the protective zone to be established around northern goshawk nests. Appellants claim that the standard established for the Project is substantially less than that required in Region 3 and even less than typically employed in Region 2, without any supporting rationale as to why this lesser standard "will protect sufficient nesting habitat characteristics for the site to remain effective" (FEIS, Vol. 1, Page 3-291).

Discussion: The first of two mitigation measures apparently required for goshawks is to "Inventory for and prohibit construction activities within ¼ mile of any active goshawk nest between April 1 and August 15." As Appellants suggest, this equates to 125 acre area surrounding the nest site. Measure two calls for "Inventory for goshawk nest structures and relocate construction activities to avoid a 30-acre area surrounding active or vacant alternate goshawk nest sites. For active nest sites, these two measures appear to be in contradiction. A 30-acre exclusion zone for construction activities would translate to only a 645-foot or 0.12-mile radius.

Second, Appellants contend that the stipulated protective zone for the Project "does not appear supported by the Region's own practice".

Discussion: Appellants refer to an unreferenced (consequently, we could not check the claim) statement in the EIS that "The most common protective measure used in Region 2 is to create no-use or limited use buffer zones around known nest sites. These buffer zones can range from 182-400 m from known nest sites". First, Appellants are selectively choosing the 30-acre restricted zone for active and inactive alternative nests discussed above to challenge, when in fact, the stipulated ¼ mile buffer translates to a 125-acre restricted zone. This apparent discrepancy regarding a protective zone around active sites is resolved by a buffer around active nest sites which clearly establishes a protective zone at active nest sites. The 30-acre stipulation applies at inactive, alternate nest sites. This difference is logical, as a broader exclusion zone is necessary to avoid nest abandonment at an active site, while a narrower exclusion zone may be employed to protect nest site characteristics when nesting activity is not currently occurring.

Even if the 30-acre zone was applied, that translates to195 meters, which is within the lower limits of the range to which the Appellants are challenging. However, I find that the 125-acre zone is to be applied around active nest sites.

Appellants also challenge the lack of justification for not following an apparently more restrictive measure used in Region 3.

Discussion: In challenging the justification for this protective measure, Appellants claim that "… the Forest Service failed to ensure the integrity of this analysis when it failed to consult a number of the most important goshawk references in the scientific literature, including the Region 3 standard reference (Reynold, R.T. et al., 1992). In fact, not only did the Forest utilize this reference, but the Forest directly contacted the lead author on two occasions (FEIS, Vol. III, Page J-212). Furthermore, the Forest consulted:

> Kennedy, P.L. (2003, January 3). Northern Goshawk (Accipiter gentilis atricapillus*): a technical Conservation Assessment.* USDA Forest Service, Rocky Mountain Region. Available: http://www.fs.fed.us/r2/projects/scp/assessments/ (date of access).

This assessment is a peer-reviewed (Society for Conservation Biology) monograph prepared for the Region 2 Species Conservation Project with specific intent to be state-of-knowledge, and therefore, provide the best available science. In fact, this assessment draws from and cites all 3 of the important citations the Appellant claims were not used by the Forest.

Conclusion: The allegation that the Forest Service failed to utilize important references in deriving its protective standards for goshawks on the Project is without merit. The ¼ miles buffer stipulation clearly establishes the standard at active nest sites. The second 30-acre stipulation applies at unoccupied sites where a smaller exclusion zone is appropriate. Therefore, I recommend the Forest Supervisor be affirmed on this issue.

d. The Forest Service Failed to Analyze the Impacts to the HD Mountains' Archeological Resources and the Effectiveness of Mitigation Measures.

Discussion: Section 3.18.3.1 Effects to Cultural Resources of the FEIS discusses in detail the potential impacts to cultural and historical sites within the overall project area for each alternative. Table 3-195 provides a breakdown of impacts to resources on Forest, BLM, State, private, and other lands for each alternative. Mitigation is provided in the form of buffer zones, fencing, relocation and data collection (FEIS 3-564 to 3-574).

I recommend that the Forest Supervisor be affirmed on this issue.

e. The Forest Service Failed to Analyze Connected, Cumulative and Similar Actions.

Discussion: Analysis of cumulative effects are described in each resource section of the FEIS Chapter 3: Affected Environment and Environmental Consequences (FEIS 3-3, 3-37, 3-78, 3-101, 3-161, 3-211, 3-257, 3-268, 3-300, 3-313, 3-332, 3-358, 3-378, 3-406, 3-429, 3-446, 3-501,

3-520, 3-538, 3-568). Additionally, an extensive overview of all cumulative effects analyses is provided in Section 3.19 of the FEIS starting on page 3-576.

I recommend that the Forest Supervisor be affirmed on this issue.

D. The Decisions Violate the NHPA and its implementing regulations.

The Appellants' allege NHPA has been violated because the FEIS does not indicate that 1) the Forest Service made the requisite reasonable and good faith effort to identify historic properties in the Project area as required by 36 C.F.R. § 800.4(b); 2) that it determined whether identified properties are eligible for listing on the National Register based on criteria in 36 C.F.R. § 60.4; 3) that it assessed the effects of the proposed oil and gas development on any eligible historic properties found, as required under 36 C.F.R. §§ 800.4, 800.5, 800.9(a); 4) that it determined whether those effects would be adverse, as required by 36 C.F.R. §§ 800.5, 800.9(b); or 5) that it has avoided or mitigated any adverse effects, 36 C.F.R. §§ 800.8(e), 800.9.

Discussion: Pages 3-559 through 3-562 of the FEIS contain a summary of the known cultural resource sites in the project area. There is also a discussion of eligibility for listing on the National Register. Approximately 34.6 percent of the sites are listed on the National Register, contribute to the eligibility of a National Register District, or are recommended as eligible for the National Register, and are, therefore, considered historic properties. The environmental consequences are discussed on pages 3-563 through the top of 3-570 and include direct, indirect, and cumulative impacts. Mitigation (including BMP's) and monitoring are discussed from page 3-570 through 3-574. Specific treatment plans will be developed in consultation with the SHPO and other parties to mitigate any adverse impacts to historic properties and will be completed prior to project implementation.

I find the Forest made a reasonable and good faith effort to identify, disclose, and mitigate the effects of the project on historic properties. I recommend the Forest Supervisor be affirmed on this issue.

II. DEVELOPMENT WITHIN 1 ½ MILES OF THE FRUITLAND OUTCROP

A. The Forest Violated NEPA by Failing to Analyze the Impacts to Landowners and the Effectiveness of Mitigation from Drilling Within 1 ½ Miles of the Outcrop.

Discussion: Within the 1 ½-mile outcrop zone the decision authorizes limited opportunities for CBM development. In La Plata County, future applications for CBM well authorizations will not be considered unless the proponent can provided substantial evidence that the proposed action would mitigate existing outcrop effects, resulting in a net reduction of overall methane seepage and other outcrop effects (ROD-23).

A large portion of the FEIS documents analyses of environmental consequences related to issues presented by the public. For example, 7 issues were presented to the Forest and analyzed for migration and seepage of methane (FEIS 3-12), 8 issues were presented to the Forest and analyzed in detail regarding impacts to groundwater (FEIS 3-93). Mitigation and BMP's are

described in detail in each resource section with additional measures suggested in the ROD encouraging landowners to engage producers in organizing resources to compensate losses to landowners related to CBM development. (ex. ROD-28 "I also recognize that there may indeed be preferred approaches to mitigating effects to property owners that fall outside of the agencies' authority. For instance, as suggested during public comment, producers and affected property owners alike may find it advantageous to organize and pool resources to implement a mitigation fund (an example is provided in FEIS Appendix N) to address compensation of property owners that experience property impacts due to CBM development. Such a mitigation approach could prove more efficient for producers and property owners in terms of development and implementation of the action, and could provide greater levels of surety for all participants.")

In response to Appellants' comment expressing concern for placing the responsibility for potential long term mitigation measures "…upon a small 'mom and pop' oil company…", the decision states that "[i]f a mitigation fund or other cooperative mitigation and risk management approach is developed and agreed to by a majority of the affected parties I will give strong consideration to accepting such an arrangement as a substitute for the requirement to provide evidence of offering individual landowner agreements." (ROD, p 28-29)

Differentiating between Archuleta and La Plata Counties in reference to drilling near the outcrop is supported by geologic and hydrologic information. There is good evidence from the analyses referenced in the FEIS, pgs 3-50 through 3-54, that there is extensive fracturing and folding throughout those coal bed-bearing formations. These fractures and folds will impact the characteristics of water and gas permeability and their ability to migrate through the coal beds. While empirical evidence is limited on the east side of the unit, we do know that wells near the outcrop in Archuleta County have shown lower levels of natural gas production and much lower water production than wells near the outcrop in La Plata County. For example, a comparison of one well near the outcrop in Archuleta County with a fairly typical well near the outcrop in La Plata County, shows that the Archuleta County well produces about one third of the natural gas of the La Plata County well but only about 1/50th of the water. Also, methane seeps existed in La Plata County prior to natural gas production, but no such seeps occur in Archuleta County at this time. While the exact demarcation for these differences has not been identified, outcrop mapping and well and drilling records show that the La Plata-Archuleta County line is a close proxy to this geologic and hydrologic change near the outcrop.

I recommend that the Forest Supervisor be affirmed on this issue.

III. THE PROJECT VIOLATED NEPA BECAUSE IT FAILED TO ANALYZE IMPACTS TO ROADLESS LANDS, WILDERNESS-SUITABLE LANDS, AND POTENTIAL RESEARCH NATURAL AREAS, AND THEREBY UNLAWFULLY LIMITS THE ALTERNATIVES UNDER CONSIDERATION IN THE SAN JUAN NATIONAL FOREST PLAN REVISION.

A. Development in and around the HD Mountains Roadless Area Would Prevent the Forest Service from Selecting Any of the Alternatives in its Forest Plan Revision.

Discussion: This argument is predicated on the premise that since the LRMP is older than 15 years, the Forest does not have a current Forest Plan so decisions that would limit the alternatives in a LRMP revision could be challenged for NEPA compliance. Public Law 109-80 Title 3 Section 415 extends LRMP's that are currently due for or are undergoing revision indefinitely. This makes the current Forest LRMP valid and binding. The FEIS Appendix O pg 318 in response to DEIS comments states "[m]anagement direction for the HD Mountains and HD Mountains Roadless Area is in accordance with the current Forest Plan. The HD Mountains Roadless Area is substantially leased for energy mineral development. These prior existing rights influence how development will occur and the leases would be a factor that warrants consideration in the wilderness suitability determination."

I recommend that the Forest Supervisor be affirmed on this issue.

B. Development in the HD Mountains Roadless Area Would Prevent the Forest Service from Recommending the Area as Wilderness.

Discussion: Again, this argument is predicated on the premise that the Forest does not have a current LRMP, which is incorrect. As stated above, prior existing rights to develop energy mineral resources within the HD Mountains Roadless Area would be a factor that warrants consideration in a wilderness suitability determination. The FEIS in response to comments in Appendix O page 318 goes on to say that "[t]he final EIS can make note of the fact that a suitability analysis will take place in the near future, but the outcome of the analysis remains to be determined. The lessees have a legal right to file applications to drill on their leases and the BLM and Forest Service are mandated to process the drilling applications and to assure that energy mineral development proceeds in accordance with applicable law."

I recommend that the Forest Supervisor be affirmed on this issue.

C. The Modification and Waiver of Stipulations on Leases COC 64932 Could Prejudice the Ability of the Forest Service to Designate Resource Natural Areas in Deep Creek Canyon and Archuleta Creek.

Discussion: The ROD on page ROD-31, Table 1. Summary of Decisions Pertaining to 2001 Leases, states in the rationale that most areas included in the original stipulation are no longer identified as a RNA candidate, except for portions being considered as part of the potential Hidden Mesas RNA. The remainder of the areas covered by the NSO stipulation has been waived based on LRMP standards and guidelines, Executive Order 11988, and FSH 2509.25.

In response to comments in FEIS Appendix O pg 325 the Forest states "[t]he EIS Sections 3.11.2.3.6 and 3.11.3.3 address Archuleta Mesas (Archuleta Creek and Deep Creek), and have been expanded to include analysis and discussion of the Ignacio Creek area. This project EIS, however, does not evaluate research natural area suitability -- a process that is conducted as part of the Forest Plan revision. The BLM issued the Deep Creek lease COC-64932 (1,680 aces) in May 2001 with a no-surface-occupancy stipulation to remain in effect pending completion of this FEIS. The alternatives apply a full range of development options to the Deep Creek area. Development of the Deep Creek area is addressed in the record of decision. The Ignacio Creek

area is subject to surface occupancy leases that represent prior existing rights. These leases present obligations between the lessee and federal government that may result in energy mineral development within the potential research natural area. This situation was well known when the Colorado Natural Heritage Program, under contract to the Forest Service, identified the area as a potential RNA in the late 1990's."

I recommend that the Forest Supervisor be affirmed on this issue.

IV. AIR POLLUTION

A. The Decisions Violate NEPA and its Implementing Regulations and Clean Air Act.

1. The Forest Service failed to analyze the impacts of the project on NOx levels, failed to analyze the effectiveness of mitigation measures in reducing NOx, and failed to ensure compliance with the Clean Air Act.

Appellants allege the Forest Service violated NEPA's requirement to take a "hard look" at the impacts of the project on NOx levels by utilizing questionable assumptions in its air emissions modeling. Specifically, Appellants allege the Forest Service/BLM likely underestimated NOx emissions from wellhead compressors and possibly from central compressor engines.

Discussion: I disagree. First, I note that the FEIS, in evaluating all potential impacts to air quality, including potential impacts from NOx emissions, considered "reasonable but conservative" data and assumptions. As a result, the FEIS concludes that "[a]ctual impacts at the time of development . . . are likely to be less." (FEIS Vol. 1, Page 3-350). One significant example of a conservative assumption used in modeling air pollution impacts from the project was the assumption that all proposed CBM wells would go into production without any decline in production, then operate at full production levels throughout the entire 20-year history of the project. The FEIS notes that this development scenario "is not likely to actually occur." (FEIS Vol. 1, Page 3-350).

Some of the specific points made by the Appellants are not convincing when subjected to close scrutiny. For example, one of the primary questions raised by Appellants was the FEIS' assumption that wellhead compressors would emit NOx at a rate of 10 g/HP-hour. Appellants assert that this rate is too low and point to an analysis of NOx emissions from the Farmington RMP several years ago. Specifically, Appellants state that the NOx emissions rate assumed in the Farmington RMP from wellhead compressors was "more than ten times higher" than the rate used for this project. (Appeal at Page 70). In fact, the rate of NOx emissions from wellhead compressors assumed in the Farmington RMP was 15.8 g/hp-hr, which is only 1.58 times higher than the rate assumed in this FEIS. Moreover, the modeling for the Farmington RMP, as noted by Appellants, was conducted more than five years ago and thus it is entirely reasonable that more updated modeling might use different assumptions based on a more current survey of drilling practices in the Project Area and surroundings. Finally, as is discussed further below, the Record of Decision imposes a mandatory emissions limit of 2.0 g/HP-hour on all new and replacement internal combustion gas field engines of between 40 and 300 design-rated

horsepower. Thus, for a significant percentage of wellhead compressors, the actual emissions rate of NOx will be 2.0 g/HP-hour or less.

Similarly, I find the assumption that central compressors will emit NOx at a rate of 1.5 g/HP-hour to be reasonable. The FEIS based this assumption on rates used in recent permits issued for CBM drilling operations in the region. (FEIS Vol. 1, Page 3-532). Although Appellants express skepticism that emissions at this level will occur, they present no specific evidence indicating that central compressors used in the project area likely will emit NOx at a significantly greater level. (For example, they offer no survey of historic use showing that emissions of NOx from central compressors average more than 1.5 g/HP-hour). I note that the mitigation measures in the Record of Decision mandate that all new and replacement internal combustion gas field engines design-rated with greater than 300 horsepower must be able to emit NOx at a rate of no more than 1.0 g/HP-hour. Thus, for a significant percentage of central compressors, the actual emissions rate of NOx will be 1.0 g/HP-hour or less.

Though Appellants question the effectiveness of these mitigation measures, I find it reasonable to assume that these measures likely will have a significant impact in limiting NOx emissions from project operations both because it is highly likely that the majority of drilling operations will involve the use of new and/or replacement equipment over the 20-year history of the project, and also because a significant percentage of operations will take place on federal land, where these mitigation measures are mandatory.

Finally, Appellants claim that the FEIS failed to address the fact that many of the wellhead and compressor engines will be located on state and private lands, where they presumably will be exempt from the NOx emissions limits specified in the ROD. (Appeal, p. 71). In fact, the FEIS did address this issue. In describing the modeling efforts used to assess air impacts, "[e]missions sources were considered regardless of surface land ownership. Potential air quality impacts from all of these air pollutant emission sources were analyzed and reported in the Draft EIS as predicted "Cumulative Impacts." (FEIS Vol. III, Page 258).

Overall, I conclude that the many conservative assumptions used in the modeling of NOx emissions make it evident that the Forest Service satisfied its requirement to take a hard look at the likely impact of air pollution. I note with particular interest the FEIS' Air Quality Impact Assessment Technical Support Document (TSD), which states: "It should also be noted that the total emission estimates reflect potential continuous operation, and that actual development emissions are likely to be less." (TSD, Page 16).

I recommend that the Forest Supervisor be affirmed on this issue.

2. The Forest Service failed to analyze the impacts of the project on ozone levels and ensure compliance with the Clean Air Act.

Appellants allege that the project will be a major source of ozone precursors because engines associated with the project, including well-head compressors, central compressors, and vehicles, will produce volatile organic compounds (VOCs). (Appeal, Page 75). Appellants further claim

that the Forest Service violated NEPA by failing to take a hard look at the impacts from air emissions sources on ground level ozone concentrations.

Discussion: When this issue was raised in public comments, the Forest Service/BLM responded by suggesting that significant impacts from ozone are not likely to occur from the project. (FEIS Vol. III, Page 277). In support of this conclusion the FEIS states: "Since produced natural gas is nearly pure methane and ethane, with little or no liquid hydrocarbons, no significant SO2 or reactive VOC emissions would occur." (FEIS Vol. 1, Page 3-535).

Overall, I find that the FEIS has adequately addressed the issue of ozone. Therefore, I recommend that the Forest Supervisor be affirmed on this issue.

3. The Forest Service failed to analyze the impacts on the project on visibility in all Class I airsheds.

Appellants allege that the FEIS only evaluated air quality impacts at Mesa Verde National Park and the Weminuche Wilderness Area and that other Class I areas should have been evaluated, including the La Garita Wilderness in Colorado, the San Pedro Parks Wilderness, the Bandelier National Monument in New Mexico, the Pecos Wilderness in New Mexico, and the Canyonlands National Park in Utah. (Appeal, Page 79).

Discussion: This issue was raised in public comments, and the FEIS acknowledges that some visibility impacts are likely to occur at both the Mesa Verde and Weminuche Class I areas. (FEIS Vol. III, Page 264). I believe it was reasonable for the FEIS to focus primarily on the potential visibility impacts at the Mesa Verde and Weminuche Class I areas. In my view, this focus satisfied NEPA's hard look requirement.

Therefore, I recommend that the Forest Supervisor be affirmed on this issue.

4. The Forest Service failed to ensure compliance with Colorado's SO_2 standard.

Appellants allege that the FEIS did not thoroughly analyze SO_2 emissions to ensure they would not violate the Colorado 3-hour average SO_2 standard of 700 $\mu g/m^3$. This issue was raised in public comments.

Discussion: The FEIS responds to these comments by stating: "Potential construction related impacts were based on a detailed inventory of . . . sulfur dioxide . . . from the following activities: fugitive dust from well pad/resource road construction, as well as from traffic on unpaved roads; truck/heavy equipment exhaust; drill rig engine exhaust; and gas flaring exhaust . . . . Given the nature of the coal bed methane fuel, . . . sulfur dioxide would not be emitted in significant amounts [during production]." (FEIS Vol. III, Page 261). "Finally, since produced natural gas is nearly pure methane and ethane, with little or no hydrocarbons, no significant direct sulfur dioxide . . . emissions would occur. . . ." (FEIS Vol. III, Page 263).

Overall, I find that the FEIS has adequately addressed the issue of SO_2. Therefore, I recommend that the Forest Supervisor be affirmed on this issue.

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5. The Forest Service failed to ensure compliance with the Class II NO_2 PSD Increments.

Appellants allege that the Forest Services and BLM's modeling demonstrate that, on a cumulative basis, considering other reasonably foreseeable and existing sources, the Project could contribute to an exceedance of the Class II NO2 PSD increment. (Appeal at Page 80).

Discussion: The fact that the FEIS, according to Appellants, provides this information demonstrates that NEPA's hard look requirement was satisfied. Moreover, it is important to point out that the information highlighted by Appellants in support of their argument—Table 7-3 from the TSD—depicts a worst case scenario. Thus, I do not interpret the FEIS as stating that the PSD increment for NO2 will in fact be exceeded. Rather, the FEIS provides the public with a range of information, including worst case scenarios that conceivably could but may not occur. Given the mitigation measures provided for in the ROD, and considering the overall conservative assumptions incorporated into the modeling, I think it is far from certain that any actions occurring as a result of this decision will lead to the Class II NO2 increment being exceeded. In fact, I note that the information contained in the FEIS and Table 7-3 make it clear that the vast majority of increment consuming activity that could conceivably occur come as a result of operations from the Farmington Project, not the Northern San Juan Basin Coal Bed Methane Project. Thus, I do not agree with Appellants that this project decision represents a violation of NEPA or the Clean Air Act.

I recommend that the Forest Supervisor be affirmed on this issue.

B. The decisions violate the Clean Air Act and its implementing regulations.

1. The project's nitrogen oxide emissions would unlawfully degrade visibility at Mesa Verde National Park and the Weminuche Wilderness.

Appellants allege that the ROD fails to protect Class I airsheds [sic]. They allege that the Forest Service, as a federal land manager, has an affirmative responsibility to protect air quality related values in the two PSD Class I areas that might be impacted by the project. This issue was raised in public comments.

Discussion: The FEIS responds to these comments at FEIS Vol. III, Page 254. In addition to this response, Mesa Verde National Park is under the jurisdiction of the National Park Service. Therefore, to the extent Appellants are correct, protecting air quality related values in Mesa Verde National Park would be the responsibility of the National Park Service, not the Forest Service.

Regarding protecting air quality related values in the Weminuche Wilderness, Appellants have provided no legal or other basis for their broad interpretation of Section 165 of the Clean Air Act, 42 U.S.C. § 7475. However, based on the language of the statute itself, and its legislative history, the Forest Service does not share Appellants' expansive view as to the extent of the federal land manager's affirmative responsibility outside the proposed major emitting facility context.

Although case law is almost non-existent regarding the scope of the affirmative responsibility, the one court that did address peripheral matters in Section 165 of the Clean Air Act appears to have concurred with the Forest Service's position:

> The proposed Roundup Plant [a proposed major emitting facility] lies between Yellowstone National Park and the UL Bend Wilderness area. Its proximity to protected federal areas triggered the Prevention of Significant Deterioration provisions of the Clean Air Act. Under these provisions, which are designed "to preserve, protect, and enhance the air quality in national parks [and] national wilderness areas," 42 U.S.C. § 7470(2), (3), EPA must forward proposals for the construction of "major emitting facilities" to the "Federal Land Manager" and to the "Federal official" responsible for the areas potentially affected. . . . The Clean Air Act does not give these federal officials authority to issue or reject permit applications. But it charges them with an "affirmative responsibility to protect the air quality" in the protected areas, and requires them to "consider. . . whether a proposed major emitting facility will have an adverse impact." 7475(d)(2)(B). The federal officials fulfill these responsibilities by transmitting to the state [PSD permitting] authority their findings regarding the potential air-quality ramifications of the proposed project.

National Parks Conservation Assn. v. Manson, 414 F.3d 1, 3 (D.C. Cir. 2005).

The Forest Service is very interested in protecting air quality related values in Class I areas under its jurisdiction. However, as a major emitting facility has not been proposed here, I do not find, in this instance, that the Forest Service has a statutory affirmative responsibility to protect air quality related values in the Weminuche Wilderness.

I recommend that the Forest Supervisor be affirmed on this issue.

C. The decisions violate the Wilderness Act.

Appellants complain that in approving the project, which will occur on non-Wilderness National Forest System lands, the Forest Service did not meet its statutory responsibility to preserve the wilderness character of the Weminuche Wilderness. Appellants have taken this interpretation of the Wilderness Act out of context. 16 U.S.C. § 1133(b) states in pertinent part: "[The Forest Service] shall be responsible for preserving the wilderness character and so shall administer such area for such other purposes for which it may have been established as also to preserve its wilderness character." (emphasis added). As the administration of the Weminuche Wilderness is not contemplated by this project, this section is not applicable.

In addition, Appellants have provided no legal or other basis for this novel legal interpretation. Taken to its logical extreme, this interpretation would preclude any Forest Service from approving any activity that might have some impact on wilderness resources, no matter how slight or indirect. Essentially, Appellants would have the Forest Service create a buffer zone around the Weminuche Wilderness. The Wilderness Act does not support such an interpretation, and indeed the language of the Act suggests otherwise:

> The purposes of this chapter are hereby declared to be within and supplemental to the purposes for which national forests . . . are established and – (1) Nothing in this chapter shall be deemed to be in interference with the purposes for which national forests are established as set forth in the act of June 4, 1897 (30 Stat. 11) and the Multiple Use Sustained Yield Act of June 12, 1960 (74 Stat. 15) [16 U.S.C. §§ 528-531].

16 U.S.C. § 1133(a)(1).

I conclude that Wilderness Act, by itself, does not provide veto authority over other, non-Wilderness, activities in this project.

I recommend that the Forest Supervisor be affirmed on this issue.

RECOMMENDATION

I recommend the decision of the Forest Supervisor be affirmed in whole with the following instructions and the Appellants' requested relief be denied.

1. Proposed mitigation in 3.9.6.4.4 Hairy Woodpecker and Bluebird (FEIS, Volume I, Page 3-290) is made mandatory.

2. Language in the first two proposed measures is changed from ".... from loss to construction activities .... " to " ... from losses resulting from implementation of the ROD .... ".

3. Implement mitigation measures that increase availability of snag cavity-nesting habitat by 10% in Management Area 6B over 5 years, and include the results in the annual monitoring report.

/s/ Craig Bobzien
CRAIG BOBZIEN
Forest Supervisor, Black Hills
National Forest

cc: Mark Stiles